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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|---------------------|
| 09/707,590 | 11/07/2000 | Paul W. Dent | 4015-814 | 9683 |
| 24112 | 7590 | 09/21/2004 | EXAMINER | |
| COATS & BENNETT, PLLC P O BOX 5 RALEIGH, NC 27602 | | | | BOAKYE, ALEXANDER O |
| | | ART UNIT | | PAPER NUMBER |
| | | | | 2667 |

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|---------------------|
| | 09/707,590 | DENT, PAUL W. |
| | Examiner | Art Unit |
| | ALEXANDER BOAKYE | 2667 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 November 2000.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 65-72 is/are pending in the application.
4a) Of the above claim(s) 1-64 is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 65-71 is/are rejected.
7) Claim(s) 72 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 65-70 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 26-29 and 31 of U.S. Patent No.6,215,762. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim repeating each information block a predetermined number of times according to a predetermined spectrum spreading-factor; orthogonally encoding the repeated information blocks by applying a modification factor to each repeat of the information block, the sequence of modification factors applied to successive repeats of the information block forming one of a set of mutually orthogonal coding sequences; and transmitting the orthogonally encoded information blocks with the only difference between the claim of the patent and the claim of the instant application being that the claim of the patent is broader than the claim of the instant application and also the claim of the patent recites orthogonally

encoding information signals in the preamble while the body of the claim of the instant application recites orthogonally information signals. Therefore, it would have been obvious to one of ordinary skill in the art to use orthogonally encoding information signals at the transmitter so that the decoder can most accurately extract the original signals.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 71 and 72 are rejected under 35 U.S.C. 102(b) as being anticipated by MacDonald et al. (US Patent # 5,537,416).

Regarding claim 71, MacDonald teaches a receiver to receive a transmitted signal comprising repeated information blocks that have been encoded, the receiver (column 6, lines 52-60; see 120, Fig. 1) comprising: a receiver circuit to receive encoded information signal comprising at least one repeated information block(column 6, lines 14-25; column 6, lines 52-60); and a decoder to decode encoded repeated information block (column 6, lines 21-25; see 122 of FIG. 1). MacDonald does not explicitly disclose receiving orthogonally encoded signals but one of the ordinary skill in the art would have been motivated to use orthogonally encoded signal in a receiver system in order to able to reconstruct the original signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use

signals which are orthogonally encoded in the receiver so that associated decoder can most accurately extract the original signals without interference.

Allowable Subject Matter

3. Claim 72 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The fax number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-4750.

Alexander Boakye

Patent Examiner
AB

9/13/04


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 9/17/04